



Well	Well Elev ft msl	First Water ft bls	SWL ft bls	SWL Date	Well Depth (ft)	Seal Interval (ft)	Casing Intervals (ft)	Liner Intervals (ft)	Perforations Or Screens (ft)	Well Yield (gpm)	Draw Down (ft)	Test Type
1	980				2000	0-400						
2	1020				2000	0-400						
3	1060				2000	0-400						
4	1195				2000	0-400						
5	1240				2000	0-400						
6	1110				2000	0-400						
7	1240				2000	0-400						
8	1080				2000	0-400						
9	1150				2000	0-400						
10	1185				2000	0-400						
11	1420				2000	0-400						
12	1445				2000	0-400						
13	1410				2000	0-400						
14	1660				2000	0-400						
15	1530				2000	0-400						
16	1620				2000	0-400						
17	1470				2000	0-400						
18	1520				2000	0-400						
19	1520				2000	0-400						

Use data from application for proposed wells.

A4.  **Comments:** All information from the application. The proposed well construction would allow up to 1600 feet of open borehole in each well. This large of an open interval would allow commingling of multiple basalt aquifers within the well bores. There is no current information as to the local heads and water quality of ground water likely to be developed by the proposed deep wells, but it not likely that all aquifers developed will have reasonably similar heads. Therefore, up-hole or down-hole flow will likely result if the proposed wells are constructed in this manner.

A5.  **Provisions of the Umatilla** Basin rules relative to the development, classification and/or management of ground water hydraulically connected to surface water  are, or  are not, activated by this application. (Not all basin rules contain such provisions.)

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

A6.  **Well(s) #** \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, tap(s) an aquifer limited by an administrative restriction. Name of administrative area: \_\_\_\_\_

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**B. GROUND WATER AVAILABILITY CONSIDERATIONS, OAR 690-310-130, 400-010, 410-0070**

B1. Based upon available data, I have determined that ground water\* for the proposed use:

- a.  is over appropriated,  is not over appropriated, or  cannot be determined to be over appropriated during any period of the proposed use. \* This finding is limited to the ground water portion of the over-appropriation determination as prescribed in OAR 690-310-130;
- b.  will not or  will likely be available in the amounts requested without injury to prior water rights. \* This finding is limited to the ground water portion of the injury determination as prescribed in OAR 690-310-130;
- c.  will not or  will likely to be available within the capacity of the ground water resource; or
- d.  will, if properly conditioned, avoid injury to existing ground water rights or to the ground water resource:
  - i.  The permit should contain condition #(s) 7N;
  - ii.  The permit should be conditioned as indicated in item 2 below.
  - iii.  The permit should contain special condition(s) as indicated in item 3 below;

- B2. a.  Condition to allow ground water production from no deeper than \_\_\_\_\_ ft. below land surface;
- b.  Condition to allow ground water production from no shallower than \_\_\_\_\_ ft. below land surface;
- c.  Condition to allow ground water production only from the basalt ground water reservoir;
- d.  Well reconstruction is necessary to accomplish one or more of the above conditions. The problems that are likely to occur with this use and without reconstructing are cited below. Without reconstruction, I recommend withholding issuance of the permit until evidence of well reconstruction is filed with the Department and approved by the Ground Water Section.

**Describe injury** –as related to water availability– that is likely to occur without well reconstruction (interference w/ senior water rights, not within the capacity of the resource, etc): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

B3. Ground water availability remarks: Ground water in basalt aquifers in the Umatilla Basin is subject to water-level declines in areas where development of the resource is concentrated. Although such concentrated development does not yet exist in this part of the basin, there are several wells located nearby. A few of them are completed to depths below the proposed casing and seal depth of the wells here. These wells will likely be subject to injury resulting from excessively declining water-levels and substantial or undue interference resulting from the proposed use. I recommend that the applicant provide a report including additional information or demonstration that bears on the above findings that ground water will not likely be available. If a report is forthcoming that is persuasive regarding a conclusion that ground water is available for the proposal or recommends modifications to the application that would result in the same conclusion, then the permit, if issued, should include the conditions recommended at B1d above.

**SPECIAL CONDITION:** The wells shall be cased and sealed in such a manner to develop a single basalt aquifer.

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C3a. **690-09-040 (4):** Evaluation of stream impacts for each well that has been determined or assumed to be **hydraulically connected and less than 1 mile** from a surface water source. Limit evaluation to instream rights and minimum stream flows that are pertinent to that surface water source, and not lower SW sources to which the stream under evaluation is tributary. Compare the requested rate against the 1% of 80% *natural* flow for the pertinent Water Availability Basin (WAB). If Q is not distributed by well, use full rate for each well. Any checked  box indicates the well is assumed to have the potential to cause PSI.

Well	SW #	Well < ¼ mile?	Qw > 5 cfs?	Instream Water Right ID	Instream Water Right Q (cfs)	Qw > 1% ISWR?	80% Natural Flow (cfs)	Qw > 1% of 80% Natural Flow?	Interference @ 30 days (%)	Potential for Subst. Interfer. Assumed?
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

C3b. **690-09-040 (4):** Evaluation of stream impacts by total appropriation for all wells determined or assumed to be **hydraulically connected and less than 1 mile** from a surface water source. **Complete only if Q is distributed among wells.** Otherwise same evaluation and limitations apply as in C3a above.

SW #	Qw > 5 cfs?	Instream Water Right ID	Instream Water Right Q (cfs)	Qw > 1% ISWR?	80% Natural Flow (cfs)	Qw > 1% of 80% Natural Flow?	Interference @ 30 days (%)	Potential for Subst. Interfer. Assumed?
	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

**Comments:**     This section does not apply.      
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

C4a. **690-09-040 (5):** Estimated impacts on **hydraulically connected surface water sources greater than one mile** as a percentage of the proposed pumping rate. Limit evaluation to the effects that will occur up to one year after pumping begins. This table encompasses the considerations required by 09-040 (5)(a), (b), (c) and (d), which are not included on this form. Use additional sheets if calculated flows from more than one WAB are required.

Non-Distributed Wells													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
Distributed Wells													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													



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**References Used: Local well logs; nearby recent reviews; GW Reports 30 & 35; Lower Umatilla Basin Report, 1995, Chapter 2, Hydrogeology, by Wozniak.**

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**D. WELL CONSTRUCTION, OAR 690-200**

D1. Well #: \_\_\_\_\_ Logid: \_\_\_\_\_

D2. **THE WELL does not meet current well construction standards based upon:**

- a.  review of the well log;
- b.  field inspection by \_\_\_\_\_;
- c.  report of CWRE \_\_\_\_\_;
- d.  other: (specify) \_\_\_\_\_

D3. **THE WELL construction deficiency:**

- a.  constitutes a health threat under Division 200 rules;
- b.  commingles water from more than one ground water reservoir;
- c.  permits the loss of artesian head;
- d.  permits the de-watering of one or more ground water reservoirs;
- e.  other: (specify) \_\_\_\_\_

D4. **THE WELL construction deficiency is described as follows:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- D5. **THE WELL**
- a.  was, or  was not constructed according to the standards in effect at the time of original construction or most recent modification.
  - b.  I don't know if it met standards at the time of construction.

D6.  **Route to the Enforcement Section.** I recommend withholding issuance of the permit until evidence of well reconstruction is filed with the Department and approved by the Enforcement Section and the Ground Water Section.

**THIS SECTION TO BE COMPLETED BY ENFORCEMENT PERSONNEL**

D7.  Well construction deficiency has been corrected by the following actions: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_, 200\_\_\_\_.  
(Enforcement Section Signature)

D8.  **Route to Water Rights Section (attach well reconstruction logs to this page).**

\_\_\_\_\_



JUNIPER CAN> COLUMBIA R- AT MOUTH  
UMATILLA BASIN

Water Availability as of 9/18/2008

Watershed ID #: 30710109

Exceedance Level: 80%

Date: 9/18/2008

Time: 11:39 PM

Water Availability Calculation

Consumptive Uses and Storages

Instream Requirements

Reservations

Water Rights

Watershed Characteristics

# Water Availability Calculation

Monthly Streamflows in Cubic Feet per Second  
Storage at 50% Exceedance in Acre-Feet

Month	Natural Stream Flow	Consumptive Use and Storage	Expected Stream Flow	Reserved Stream Flow	Instream Requirement	Net Water Available
Jan	0.59	0.00	0.59	0.00	0.00	0.59
Feb	2.53	0.00	2.53	0.00	0.00	2.53
Mar	4.94	0.01	4.93	0.00	0.00	4.93
Apr	1.21	0.07	1.14	0.00	0.00	1.14
May	0.17	0.11	0.06	0.00	0.00	0.06
Jun	0.07	0.14	-0.07	0.00	0.00	-0.07
Jul	0.04	0.20	-0.16	0.00	0.00	-0.16
Aug	0.01	0.16	-0.15	0.00	0.00	-0.15
Sep	0.00	0.10	-0.10	0.00	0.00	-0.10
Oct	0.00	0.00	0.00	0.00	0.00	0.00
Nov	0.00	0.00	0.00	0.00	0.00	0.00
Dec	0.16	0.00	0.16	0.00	0.00	0.16
Storage Acre-Feet at 50%	2,390.00	48.00	2,370.00	0.00	0.00	2,370.00

**COLD SPRINGS CAN> COLD SPRINGS RES- AT MOUTH  
UMATILLA BASIN**

Water Availability as of 9/18/2008

Watershed ID #: 30710342

Exceedance Level: 80%

Date: 9/18/2008

Time: 11:49 PM

Water Availability Calculation

Consumptive Uses and Storages

Instream Requirements

Reservations

Water Rights

Watershed Characteristics

## Water Availability Calculation

Monthly Streamflows in Cubic Feet per Second  
Storage at 50% Exceedance in Acre-Feet

Month	Natural Stream Flow	Consumptive Use and Storage	Expected Stream Flow	Reserved Stream Flow	Instream Requirement	Net Water Available
Jan	0.55	0.02	0.54	0.00	0.00	0.54
Feb	2.49	0.05	2.44	0.00	0.00	2.44
Mar	6.25	0.14	6.11	0.00	0.00	6.11
Apr	1.69	0.17	1.52	0.00	0.00	1.52
May	0.24	0.23	0.01	0.00	0.00	0.01
Jun	0.09	0.30	-0.21	0.00	0.00	-0.21
Jul	0.05	0.41	-0.36	0.00	0.00	-0.36
Aug	0.02	0.33	-0.31	0.00	0.00	-0.31
Sep	0.00	0.20	-0.20	0.00	0.00	-0.20
Oct	0.00	0.00	0.00	0.00	0.00	0.00
Nov	0.00	0.00	0.00	0.00	0.00	0.00
Dec	0.13	0.00	0.13	0.00	0.00	0.13
Storage Acre-Feet at 50%	3,230.00	112.00	3,190.00	0.00	0.00	3,190.00